

REMARKS

Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

By this Amendment, claims 1, 4-5, 7, 10 and 12 are amended and claim 13 is newly added. Support for the amendments to claims 1, 4-5, 7, 10, 12 and 13 may be found throughout the original disclosure. No new matter has been added. Accordingly, after entry of this Amendment, claims 1-13 will remain pending in the patent application. Since this Amendment is being presented together with a Request for Continued Examination, entry of this Amendment is respectfully requested.

Claims 1-4, 7-8 and 12 were rejected under 35 U.S.C. §103(a) based on Mitzel et al. (U.S. Pat. No. 4,324,394) (hereinafter "Mitzel") in view of Herold et al. (U.S. Pat. No. 3,945,095) (hereinafter "Herold") and Malachowski et al. (U.S. Pat. No. 5,135,213) (hereinafter "Malachowski"). The rejection is respectfully traversed.

Claim 1 is patentable over Mitzel at least because this claim recites a sheet take-out apparatus comprising, *inter alia*, an air spout unit to spout out air toward a right or left side of a front portion of said sheets with respect to a taking-out direction of said sheets in order for the front portion of said sheets to separate from each other; a take-out unit to take out an uppermost sheet from said sheets in the taking-out direction when the air spouted out maintains the sheets separated from each other; and a depression member to depress said sheets against said sheet-feeding member from the uppermost sheet on a rear portion of said sheets located behind a central portion of said sheets with respect to the taking-out direction. Mitzel does not disclose, teach or suggest these features.

Mitzel discloses a feeder device for transferring a stack of paper sheets. (*See, e.g.*, FIG. 1 of Mitzel). The feeder device of Mitzel includes a separation cylinder 90, an air conducting plate 94 provided with a plurality of air blast bores 96 and a pressure plate 95. (*See, e.g.*, col. 3, lines 7-22 and FIG. 1 of Mitzel).

However, unlike claim 1, and as conceded by the Office Action, Mitzel is silent as to an air spout unit to spout out air toward a right or left side of a front portion of said sheets with respect to a taking-out direction of said sheets in order for the front portion of said sheets to separate from each other. In particular, the air conducting plate 94 of Mitzel is not adapted to spout out air in the manner recited by claim 1. Mitzel merely discloses that the blast bores 96 of the air conducting plate 94 are provided at a side portion of mounting wall 136 to flow air therethrough in order to separate the individual sheet 119 located at the bottom of the stack from the remaining sheets, which remaining sheets are kept in contact due

to the pressure exerted by the pressure plate 95. (*See, e.g.*, col. 5, lines 43-61 and FIGS. 3 and 4 of Mitzel). As such, the blast bores 96 of Mitzel are clearly incapable of separating the front portion of the sheets from one another, as mandated by claim 1.

Moreover, Applicants respectfully submit that the stack of sheets of Mitzel is always depressed downwardly due to gravity and the pressure exerted by the pressure plate 95. As such, it would still be extremely difficult to take only one sheet at the bottom of the stack even with the use of the air spout unit of claim 1. Accordingly, there appears to be no motivation or suggestion for one of ordinary skill in the art to modify Mitzel in order to provide the apparatus of claim 1.

Furthermore, unlike claim 1, Mitzel is silent as to a depression member that depresses the sheets against the sheet-feeding member from the uppermost sheet on a rear portion of the sheets located behind a central portion of the sheets with respect to the taking-out direction. Mitzel merely discloses that a pressure plate 95 is adapted to press the sheets against the air conducting plate 94. (*See, e.g.*, col. 5, lines 66-68 and col. 6, lines 1-9 of Mitzel). Moreover, Mitzel discloses that the pressure plate is positioned at a central position above the uppermost sheet. (*See, e.g.*, FIGS. 1, 2 and 4 of Mitzel).

In addition, unlike claim 1, Mitzel is silent as to a take-out unit that takes out an uppermost sheet from the sheets in the taking-out direction when the air spouted out maintains the sheets separated from each other. Mitzel merely discloses that the take out roller 91 is adapted to take the sheet provided at the bottom of the stack. (*See, e.g.*, col. 5, lines 43-61 and FIGS. 3 and 4 of Mitzel).

Herold and Malachowski fail to remedy the deficiencies of Mitzel. Herold discloses an apparatus for aligning the edges of a stack of sheets provided on a plate. (*See, e.g.*, FIG. 1 of Herold). However, Herold is silent as to, for example, a depression member adapted to depress the sheets against the plates 2a-b from the uppermost sheet on a rear portion of the sheets and located behind a central portion of said sheets with respect to the taking-out direction. In addition, Herold is silent as to a take-out unit to take out an uppermost sheet from the sheets.

Malachowski discloses an apparatus for individually feeding sheets from a stack of sheets that includes a bottom plate 20 to support a stack of sheets, a vacuum corrugation feeder for taking out a sheet and a hold down means 50 for exerting a force on the next top sheet beneath the top sheet. (*See, e.g.*, FIG. 1 and col. 3, lines 2-55 of Malachowski). However, unlike claim 1, the hold down means 50 is merely adapted to press the next top sheets against the bottom plate. (*See* FIG. 1 and col. 3, lines 27-33 of Malachowski). There

is no teaching or suggestion anywhere in Malachowski that indicates that the hold down means is configured to depress the sheets, as mandated by claim 1.

Accordingly, any reasonable combination of Mitzel, Herold and Malachowski cannot result, in any way, in the invention of claim 1.

In addition, Applicants respectfully submit that the proposed modification of Mitzel is improper because it would defeat its intended purpose, which is to separate sheets from a stack of sheets one at a time. In order to achieve this objective, Mitzel teaches pressing the stack of sheets against the plate 94 during the entire separating operation and applying a flow of air to separate the lowermost sheet in the stack. (See, e.g., col. 6, lines 5-9 of Mitzel). As such, one of ordinary skill in the art would clearly not be motivated to replace the pressure plate 95 with a depression member, as recited in claim 1, because it would not give "the stack a definite shape under slight uniform pressure which is maintained during the entire separating operation", as mandated by Mitzel. *Id.* Clearly, the proposed modification would not properly separate the sheets, and therefore would render Mitzel's feeding device unsatisfactory for its intended purpose. Therefore, for at least this reason, Applicants respectfully submit that the proposed modification of Mitzel is improper. As such, the rejection of claim 1 must be withdrawn. (See MPEP 2145).

Claims 2-3 are patentable over Mitzel, Herold, Malachowski and a combination thereof at least by virtue of their dependency from claim 1 and for the additional features recited therein.

Claim 4 is patentable over Mitzel, Herold, Malachowski and a combination thereof for at least similar reasons as provided above in claim 1 and for the additional features recited therein. Namely, claim 4 is patentable over Mitzel, Herold, Malachowski and a combination thereof at least because this claim recites a sheet take-out apparatus comprising, *inter alia*, an air spout unit to spout air toward said sheets placed on said sheet-feeding member in order for the front portion of said sheets to separate from each other; a take-out unit to take out an uppermost sheet from said sheets in a predetermined taking-out direction when the air spouted out maintains the sheets separated from each other; and a depression member to depress said sheets against said sheet-feeding member from the uppermost sheet on a rear portion of said sheets located behind a central portion of said sheets with respect to the taking-out direction. As mentioned previously, Mitzel, Herold and Malachowski are silent as to these features.

Likewise, claim 7 is patentable over Mitzel, Herold, Malachowski and a combination thereof for at least similar reasons as provided above in claim 1, and for the additional

features recited therein. Namely, claim 7 is patentable over Mitzel, Herold, Malachowski and a combination thereof at least because this claim recites a sheet take-out apparatus comprising, *inter alia*, an air spout unit to spout out air toward a right or left side of a front portion of said sheets with respect to a taking-out direction of said sheets in order for the front portion of said sheets to separate from each other; and an air depression member to depress said sheets by air against said sheet-feeding member from the top sheet on a rear portion of said sheets located behind a central portion of said sheets with respect to the taking-out direction when the air spout unit maintains the sheets separated from each other. As mentioned previously, Mitzel, Herold and Malachowski are silent as to these features. In particular, Applicants respectfully submit that the pressing device disclosed in Mitzel and Malachowski is merely a pressure plate, not an air depression member configured to depress the sheets against the sheet-feeding plate.

Claim 8 is patentable over Mitzel, Herold, Malachowski and a combination thereof at least by virtue of its dependency from claim 7 and for the additional features recited therein.

Moreover, claim 12 is patentable over Mitzel, Herold, Malachowski and a combination thereof for at least similar reasons as provided above in claim 1. Namely, claim 12 is patentable over Mitzel, Herold, Malachowski and a combination thereof at least because this claim recites a method comprising, *inter alia*, spouting out air toward a right or left side of a front portion of said stacked sheets with respect to a taking-out direction of said sheets in order for the front portion of said sheets to separate from each other; taking out an uppermost sheet from said stacked sheets in the taking-out direction when the air spouted out maintains the sheets separated from each other; and depressing said stacked sheets against said sheet-feeding member from the uppermost sheet on a rear portion of said sheets located behind a central portion of said stacked sheets with respect to the taking-out direction. As mentioned previously, Mitzel, Herold and Malachowski are silent as to these features.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-4, 7-8 and 12 under 35 U.S.C. §103(a) based on Mitzel in view of Herold and Malachowski are respectfully requested.

Claims 5 and 6 were rejected under 35 U.S.C. §103(a) based on Mitzel in view of Herold, Malachowski and Hunt (U.S. Pat. No. 4,395,035). The rejection is respectfully traversed.

Claim 5 is patentable over Mitzel, Herold, Malachowski and a combination thereof for at least similar reasons as provided above in claim 1, and for the additional features recited therein. Namely, claim 5 is patentable over Mitzel, Herold, Malachowski and a

combination thereof at least because this claim recites a sheet take-out apparatus comprising, *inter alia*, an air spout unit to spout out air toward a right or left side of a front portion of said sheets with respect to a taking-out direction of said sheets in order for the front portion of said sheets to separate from each other; a take-out unit to take out an uppermost sheet from said sheets in the taking-out direction when the air spouted out maintains the sheets separated from each other; and an air jet nozzle to depress said sheets against said sheet-feeding member from the uppermost sheet on a rear portion of said sheets located behind a central portion of said sheets with respect to the taking-out direction. As mentioned previously, Mitzel, Herold and Malachowski are silent as to these features.

In particular, Applicants respectfully submit that the pressing device disclosed in Mitzel and Malachowski is merely a pressure plate, not an air jet nozzle to depress the sheets against the sheet-feeding plate.

Hunt fails to remedy the deficiencies of Mitzel, Herold and Malachowski. Hunt merely relates to an apparatus that includes a fluid jet emitting drum 30 that separates the sheets. (*See, e.g.*, col. 3, lines 5-8 of Hunt). However, unlike claim 5, the drum 30 is not adapted to depress the sheets against the sheet-feeding member from the uppermost sheet on a rear portion of said sheets and is not located behind a central portion of the sheets with respect to the taking-out direction. Hunt merely discloses that the drum is located at the front portion of the sheets with respect to the take out direction and supplies air to the top sheet. As such, the drum 30 of Hunt compresses the top sheet and is therefore incapable of depressing the sheets against the sheet-feeding member, as required by claim 5.

Accordingly, any reasonable combination of Mitzel, Herold, Malachowski and Hunt cannot result, in any way, in the invention of claim 5.

In addition, for at least similar reasons as provided above, Applicants respectfully submit that the proposed modification of Mitzel is improper because it would defeat its intended purpose, which is to separate sheets from a stack of sheets one at a time. Therefore, this rejection must be withdrawn. (*See* MPEP 2145).

Claim 6 is patentable over Mitzel, Herold, Malachowski, Hunt and a combination thereof at least by virtue of its dependency from claim 5, and for the additional features recited therein.

Accordingly, reconsideration and withdrawal of the rejection of claims 5 and 6 under 35 U.S.C. §103(a) based on Mitzel in view of Herold, Malachowski and Hunt are respectfully requested.

Claim 9 was rejected under 35 U.S.C. §103(a) based on Mitzel in view of Herold, Malachowski and Stievenart et *al.* (U.S. Pat. No. 4,348,019) (hereinafter "Stievenart"). The rejection is respectfully traversed.

Claim 9 is patentable over Mitzel, Herold and Malachowski at least by virtue of its dependency from claim 7 and for the additional features recited therein.

Stievenart fails to remedy the deficiencies of Mitzel, Herold, and Malachowski. In particular, Stievenart is silent as to an air spout unit to spout out air toward a right or left side of a front portion of said sheets with respect to a taking-out direction of said sheets in order for the front portion of said sheets to separate from each other and an air depression member to depress said sheets by air against said sheet-feeding member from the top sheet on a rear portion of said sheets located behind a central portion of said sheets with respect to the taking-out direction when the air spout unit maintains the sheets separated from each other. Therefore, any reasonable combination of Mitzel, Herold, Malachowski and Stievenart cannot result in the invention of claim 7.

In addition, for at least similar reasons as provided above, Applicants respectfully submit that the proposed modification of Mitzel is improper because it would defeat its intended purpose, which is to separate sheets from a stack of sheets one at a time. Therefore, this rejection must be withdrawn. (*See* MPEP 2145).

Accordingly, reconsideration and withdrawal of the rejection of claim 9 under 35 U.S.C. §103(a) based on Mitzel in view of Herold, Malachowski and Stievenart are respectfully requested.

Claims 10 and 11 were rejected under 35 U.S.C. §103(a) based on Mitzel in view of Herold, Malachowski and Yokota (JP 62140948). The rejection is respectfully traversed.

Claim 10 is patentable over Mitzel, Herold, Malachowski and a combination thereof for at least similar reasons as provided above in claim 1 and for the additional features recited therein. Namely, claim 10 is patentable over Mitzel, Herold, Malachowski and a combination thereof at least because this claim recites a sheet take out apparatus comprising, *inter alia*, an air depression member to depress said sheets by air against said sheet-feeding member from the uppermost sheet on a rear portion of said sheets located behind a central portion of said sheets with respect to the taking-out direction. As mentioned previously, Mitzel, Herold and Malachowski do not disclose, teach or suggest these features.

Yokota fails to remedy the deficiencies of Mitzel, Herold and Malachowski. Yokota discloses devices 1, 2 provided on both sides of empty pallets 3 that blow out air. (*See* Abstract of Yokota). Yokota discloses that the device 4 absorbs a pallet in its center by

means of vacuum and moves the pallet vertically. *Id.* As such, any reasonable combination of Mitzel, Herold, Malachowski and Yokota cannot result, in any way, in the invention of claim 10.

Claim 11 is patentable over Mitzel, Herold, Malachowski, Yokota and a combination thereof at least by virtue of its dependency from claim 10 and for the additional features recited therein.

In addition, for at least similar reasons as provided above, Applicants respectfully submit that the proposed modification of Mitzel is improper because it would defeat its intended purpose, which is to separate sheets from a stack of sheets one at a time. Therefore, this rejection must be withdrawn. (*See* MPEP 2145).

Accordingly, reconsideration and withdrawal of the rejection of claims 10 and 11 under 35 U.S.C. §103(a) based on Mitzel in view of Herold, Malachowski and Yomota are respectfully requested.

Claim 13 is newly added to define additional subject matter that is novel and non-obvious. Claim 13 is patentable over the art of record at least by virtue of its dependency from claim 1 and for the additional features recited therein.

All of the rejections having been addressed, Applicants respectfully request that the Examiner reconsider the objections and rejections, withdraw the same, and pass this application quickly to issue.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP



CHRISTOPHE F. LAIR

Reg. No. 54248

Tel. No. 703.770.7797

Fax No. 703.770.7901

CFL
P.O. Box 10500
McLean, VA 22102
(703) 770-7900